



October 27, 2006

#### Sent via email

Eric Johnson U.S. Environmental Protection Agency Region 8, 8ENF-T 999 18<sup>th</sup> Street, Suite 300 Denver, Colorado 80202-2466

RE: Progress report for September 2006 activities - Hecla Mining Company Apex Site (EPA ID No. UT982589848, Docket No. RCRA-8-99-06)

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Dear Mr. Johnson:

Per paragraph 64 of the Order, enclosed is a copy of the September 2006 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4112 or e-mail at palader@hecla-mining.com.

Sincerely,

Paul L. Glader

Manager Environmental Services

**Encl** 

Cc:

HMC Legal Dept (w/o attachments) John Jacus, Esq. (DG&S)



October 27, 2006

#### Sent via U.S. Mail

Glenn Rogers, Chairman. Shivwits Band of Paiute Indian Tribe P.O. Box 448 Santa Clara, Utah 84765

John Krause Bureau of Indian Affairs Phoenix Area Office U.S. Department of Interior P.O. Box 10 Phoenix, AZ 85001

Kelly Youngbear BIA Southern Paiute Agency P.O. Box 720 St. George, UT 84771

RE: Progress report for August 2006 activities - Hecla Mining Company Apex Site (EPA ID No. UT982589848, Docket No. RCRA-8-99-06)

Dear Chairman Rogers, Mr. Krause and Ms. Youngbear:

Per paragraph 64 of the Order, enclosed is a copy of the September 2006 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4112 or e-mail at pglader@hecla-mining.com.

Sincerely,

Paul L. Glader

Manager Environmental Services

Encl

Cc:

HMC Legal Dept. (w/o attachments)

John Jacus, Esq. (DG&S) (w/o attachments)

Eric Johnson (USEPA, Region VIII) (w/o attachments)



**MEMORANDUM TO:** 

Apex File

**COPIES TO:** 

distribution

FROM:

Paul Glader

**SUBJECT:** 

Progress Report No. 29 for period ending September 30,

2006; Pond 2 Final Closure - Apex Site, Washington

County, Utah

#### **Summary**

The ninth visual inspection, per the long term monitoring plan, was conducted on September 18th. No unusual conditions were noted, continue to see some salt formation near the toe of the rockarmored out slopes. Investigation has shown the source to be recent rainfall contacting the natural mineralization contained in the site-sourced construction material. The August 18<sup>th</sup> repair work on the flow channel on the east side of the pond is functioning well.

The settlement monuments were surveyed in September - no appreciable settlement has been noted.

#### **Discussion**

 Surface Monitor Results To Date – Since monitoring of the top surface began (Jan 4, 2006), there has been no appreciable movement in the surface monuments at the Apex site. Significant decreases in elevation could have meant large volume changes within the impoundment due to either (1) consolidation of enclosed materials, or (2) loss of liquid through leaks in the impoundment.

There are ten monuments installed on the top surface. As shown, between installation of the monuments and the July 10, 2006 monitoring period any movements have been slight and can be attributed to surveying accuracy limitations.

Monument	Total Elevation Change Since 1/4/06 (feet)
1	-0.01
2	0.02
3	0.00
4	0.05
5	0.04
6	0.02
7	-0.06
8	0.00
9 .	-0.01
10	0.02

Please see the attached "Surface Monument Survey Data Review" dated October 4, 2006 by Monster Engineering Inc.

#### **Work Planned for Next Period**

- 1. Visual inspection of site.
- 2. Settlement monument survey will take place quarterly basis December.

#### Sampling and Analysis in Period

Field Tests, Inspections & QA/QC

1. The ninth site inspection was done on September 18th; a copy of the inspection report is included in the Supplemental Attachments section.

#### **Cost and Schedule**

Committed costs in September 2006 were approximately \$852. Total project to date committed is approximately \$1,240,000.

The cost report for August is attached. Current status of the deliverables listed in the RCRA 7003 order is as follows:

Reference Paragraph	Due	Remarks
57	15 days after effective date of order	Work completed on March 9, 2004
63	45 days after receipt of filing of order	Work started on February 23, 2004
64	28 <sup>th</sup> day after close of month	Requirement in effect after order is filed.
66	30 days after completion of all closure plan tasks	Construction completion report submitted on 3/13/2006. A follow-up report to be issued after end of monitoring period.
	Paragraph 57 63 64	Paragraph  57  15 days after effective date of order  63  45 days after receipt of filing of order  64  28 <sup>th</sup> day after close of month  66  30 days after completion of all closure plan

## The update of the schedule milestones is on the following table:

Milestone	Target	Actual	Remarks
Issue bid package – Phase I (Sump Drains)	6/14/04	6/15/04	Portion of RFP materials issued at pre- bid on 6/14/04; remainder sent via courier
Issue RFP package Phase III	6/24/04	6/24/04	
Award contract for Phase I	6/24/04	6/29/04	Date contract was shipped to Hughes
Pre-bid meeting - Phase III	7/19/04	7/19/04	
Start Phase I (Sump Drains) construction	7/12/04	7/19/04	·
Start Phase II (Evaporation)	7/19/04	7/29/04	•
Receive bids for Phase III	8/2/04	8/2/04	
Re-bid Phase III contract package	April 2005	4/27/05	Date bid package was sent to Hughes
Start Phase III construction	End of August 2005	8/29/05	Start of contractor mobilization
Complete Phase III construction	Dec 23rd 2005	12/23/05	Completion of contract scope of work
Issue Construction Completion Report	Week of 3/13/2006	3/13/06	

### **Supplemental Attachments**

- 1. September 18, 2006 long term monitoring inspection report, by D. Truman.
- 2. September Cost Report
- 3. October 4, 2006 Surface Monument Survey Data Review, by Monster Engineering Inc.

## Annual Site Inspection Summary Sheet - Apex Site - Pond 2

## Hecla Mining Company - Long-Term Maintenance and Monitoring Plan

## Form 1 of 4 - Summary

Date: <u>9~</u>	18-00		· · ·	
Inspector:	Dong-	Transo		
Cover System Component	Potential Problem		Allowable Limits	Limits Potentially Exceeded
Site Perlmeter	Erosion or	r Fencing Issues	NA	NA
	Subsidence		Minor: ponding < 1" some gullying / erosion	Yes <b>½</b> * No
,		~	Significant: see Table 2	Yes* No 💥
	Embankment Slope Stability		excessive movement or surface cracks > than 1"	Yes No 1
		on top	depth > 1"	Van + No ¥
Cover System (outslopes, top,		at embankment crest or on outslope	depth > 2"	Yes No Y
rock)	Gullying	w/in normal flow channel in diversion channel	no gullying allowed	Yes _ * No _¥
		w/in diversions at toe of impoundment outslooe	no guilying allowed	Yes* No <u>v</u>
		in diversion channel at any other location	NA	NA
·	Erosion Pi	rotection Stability	rock subsiding or missing	Yes No 🛪
	Seepage		no colored seepage allowed (red, blue, yellow w/ crystallization)	Yes No. 🕻
	Diversion Channel		rock in place, channel not moving, fence stable	Yes <b>√</b> * No
Runoff Control System	Diversion S	Swales	rock in place, no silting in or head cutting	Yes X * No
		silt build up at fence version channel	allowed if not effecting cover system	Yes <b>√</b> No

<sup>\*</sup> Mark all areas of concern or requiring repairs on attached site map.

# Annual Site Inspection - Apex Site - Pond 2

# Hecla Mining Company - Long-Term Maintenance and Monitoring Plan Form 2 of 4 - Site Perimeter

	In	spection Da	ate:	9-18-6	54				٠.
		Inspec	tor:	1Rumar	)				`
				sible Outly		reas			
Observed Condition:	alo Va	,ble p	roblen	<u>^</u>					
									•
Observed Damage:	None				,				
							May require	repair: Yes	* No 2
		Prope	rty Bounda	ary Fence a	and G	ate (walk	fence line)		
Observed Condition:	Fare						Repair	***************************************	
Observed Damage:	News							-	
Potential Corrective Actions:	Nove					,			
	,						May require	repair: Yes _	<u>ط</u> No <u>*</u>
		All Up	gradient A	reas (areas	that	drain onto	o propertý)		
Observed Condition:	No	New	proto	lens.					
Observed Damage:	None					· · · · · · · · · · · · · · · · · · ·			
							May require	repair: Yes	. No A

<sup>\*</sup> Mark all areas of concern or requiring repairs on attached site map.

### Annual Site Inspection - Apex Site - Pond 2

## Hecla Mining Company - Long-Term Maintenance and Monitoring Plan

## Form 3 of 4 - Impoundment

	Inspection Date: 5-18-14	
	Outslopes	
Observed Performance:	Rock Cover Subsidence: Yes No Y	May require repair: Yes* No ★
	Excessive Slope Movement (failure): Yes No e	May require repair: Yes* No _\mathbb{y}
	Gully Development: Yes X No	May require repair: Yes No _v
•	Observable Leachate (colored): Yes No (~~)	May require repair: Yes No
	Excessive Siltation (at slope toe): Yes No	May require repair: Yes No
Observed Damage:		
	don't know how the fest Come	out N/D. Gibbs
	Top (top surface soils)	
Observed Performance:	Cracking (>1" width): Yes No Y	May require repair: Yes No _र्
	Settlement / Evidence of Ponding: Yes No 1/2	May require repair: Yes* No X
	Erosion / Gullying: Yes No 2	May require repair: Yes No
Observed Damage:	Nen	
Potential Corrective Actions:	None	
	Erosion Protection Layer (roo	;k)
Observed Performance:	Rock Staying in Place: Yes No	May require repair: Yes No
	Rock Subsiding: Yes NoY	, May require repair: Yes No 🗡
	Missing Rock: Yes No	May require repair: Yes No XI
Observed Damage:	NML	
Potential Corrective Actions:	Now	

mark all areas of concern or requiring repairs on attached site map.

#### Annual Site Inspection - Apex Site - Pond 2

## Hecla Mining Company - Long-Term Maintenance and Monitoring Plan Form 4 of 4 - Diversion Channel and Swales

Date: 9	-18-06 D18-		-
		Diversion Channel	
Observed Performance:	Erosion Protection in place:	Yes // No	May require repair: Yes* No
	Normal Flow Channel in place:	Yes X No	May require repair: Yes* No 📈
	Encroaching on Site Fencing:	Yes No x	May require repair: Yes* No
Observed Damage:	lawe		
	•		
1	Dong Gills made flow chances on Correctly now.	Some Correction the east Sile o	to one of the free pond. It's working
		Diversion Swales	
Observed Performance:	Erosion Protection in place:	Yes 💋 No	May require repair: Yes* No 🅦
	Flow Channel Silting In:	Yes No 🔀	May require repair: Yes* No _x
	Head Cutting:	Yes No 🔩	May require repair: Yes* No
Observed Damage:	V W «		
Potential Corrective / Actions:	Ume		

<sup>\*</sup> Mark all areas of concern or requiring repairs on attached site map.

			MANUFACTURE OF THE PROPERTY.	- 0. M 100 W // N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N - 1 N			
Activity	2004 Budget	Revised Budget May 2004	Committed Cost this Period	Cumulative Committed Cost To Date 9-30-06	Forecasted Cost To Complete	Forecasted Final Cost	Remarks on Forecast to Complete
Phases I through III (Completed February 2006)							
Phase I - Drain Excess Liquid From Tailings	189,200	72,700		67,928	0	67,928	
The second secon						r	
Phases II, IIA + IIB - Evaporate Excess Liquid	6,000	8,000		242,882	0	242,882	
		,					
Phase III - Regrading & Final Cover System	337,000	342,050		504,742	0	504,742	
						······································	
Field Indirect Costs	164,500	213,568		378,517	0	378,517	Includes Jan + Feb 2006 long term monitoring costs
	40	10				00.001	
Hecla Costs	18,700	18,700	0	33,324	0	33,324	
Cultural Shares Litherarch III	745 400	CEE OAG	<u> </u>	4 007 202	0	4 227 202	4
Subtotal Phases I through III	715,400	655,018	0	1,227,393		1,227,393	
			·			The law of the control of the contro	
Long Term Monitoring (through FY 2010)							
Site Inspections			177	924	3,761	4,685	
Settlement Monitoring			675		6.750	10.125	
Consultant Support:				and the state of t			
Annual Geotechnical Engineer Inspections			0	2,495	18,100	20,595	Includes settlement monitoring data analysis
Vegetation Monitoring			0	0	20,000		Allowance for surveys in FY 2007, 2009 and 2010
Site Conditions Review - MEI			0	3,161		,	
Site Conditions Review - SVL Analytical			Ö	891			
Maintenance:							
Erosion Repair Allowance			0		. ,	7,500	
Overseeding Allowance			0	0	9,920	9,920	The state of the s
Unda Brainet Management Control			<b></b>			***************************************	The second secon
Hecla Project Management Costs: Labor			<del> </del>	0.000	0 400	10 475	
Travel expenses		<del> </del>	0		8,109 1,312	10,175 1,312	
Have avhanses	,		<del>                                     </del>	<u> </u>	1,312	1,312	
Subtotal Long Term Monitoring	0	- 0	852	12,912	75,452	84,312	
Cate at a light to the monitoring		<u>`</u>	<del></del>	<u>''-</u>	. 0, 102	07,012	
			İ .				
in the second							
Total Pond 2 Final Closure	715,400	655,018	852	1,240,305	75,452	1,311,705	

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MONSTER ENGINEERING INC

3031 betweer spring ranch read layerst, colorado 8053 (479) 121.TrT

fax (470) 224.0161 could monates@peakpeak.com



#### **MEMORANDUM**

TO:

Paul Glader (Hecla Mining Company)
Doug Gibbs (Monster Engineering Inc.)

FROM: DATE:

10/4/06

SUBJECT:

Surface Monument Survey Data Review - Apex Site

Based on monthly data provided by Alpha Engineering (January to July) surface monuments at the Apex Site have not moved appreciably since the initial monitoring period (1/4/06). These monuments are utilized to monitor cover surface elevation changes. There are currently ten monuments (#1 through #9 and #11) installed on the top surface of the impoundment. Monument #10 is located off of the impoundment near the entrance gate and is used as the baseline point for surveying the remaining monuments.

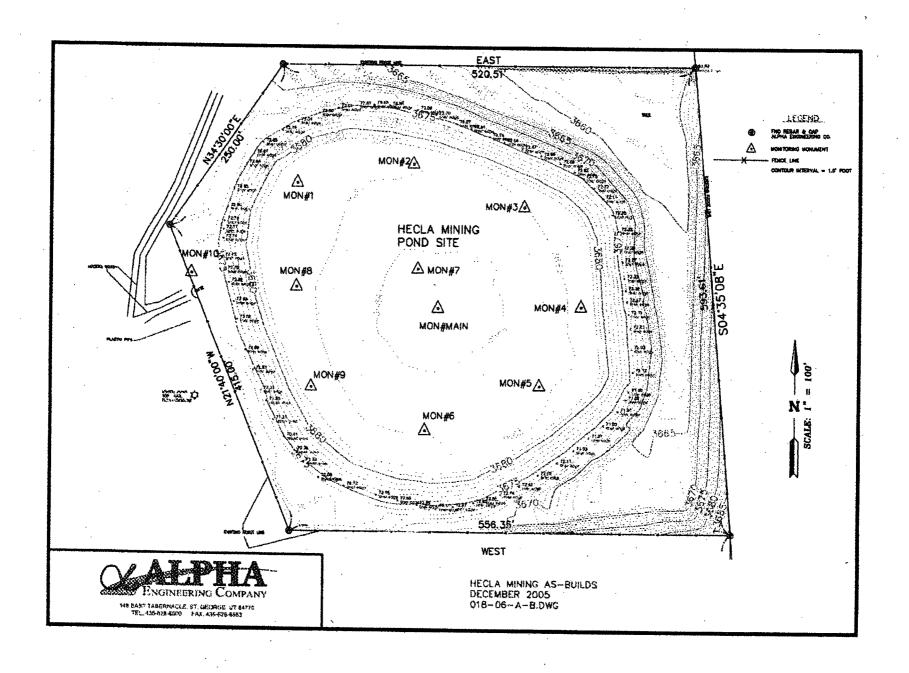
To date it appears that most apparent movement can be attributed to surveying accuracy limitations as monitoring data continues to show individual monuments both increasing and decreasing in elevation from monitoring period to monitoring period. Monument #7 (near the center of the impoundment) appears to be the only monument that has consistently decreased since February. Some settlement in this area nearer the center of the impoundment is not unexpected as significant quantities of fill were placed during construction. Total apparent settlement at monument #7 has been 0.06 feet (0.72 inches) in approximately 5 months. Conversely, the elevation for monument #11, which is located at the center, and high point of the impoundment, and very near monument #7, has been very consistent since installation. Monument #11 has moved a total of only +0.01 feet since installation.

Between the first monitoring period in January and the latest monitoring period (7/10/06), elevations of two monuments have not changed (#3 and #8), three have decreased (#1, #7, and #9), and five have increased (#2, #4, #5, #6, and #11) as shown in the table on the following page.

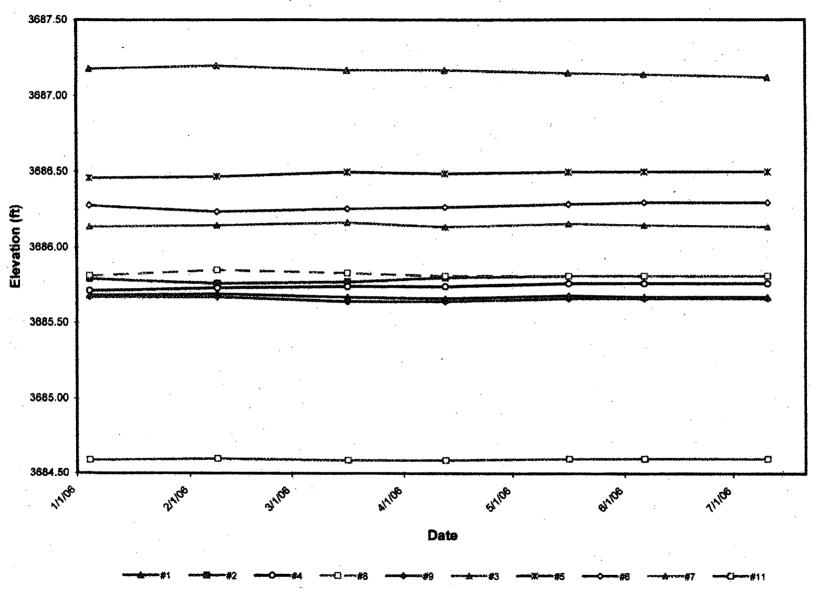
Monument	Total Elevation Change Since January 4: 2006 (fest)
1.	-0.01
2	0.02
3	0.00
4	0.05
5	0.04
6	0.02
7	-0.06
8	0.00
9	-0.01
10 (baseline @ gate)	0.02
11 (main/@ center)	0.01

All elevation data provided by Alpha Engineering is presented graphically on the attached pages. The first graph shows all monuments (except #10 the baseline point) on a scale that allows all data to be compared. The next five graphs have expanded and equivalent "Y" axes scales in order to more clearly show elevation changes and for ease of comparison between graphs.

Based on data collected to date, MEI recommends that Hecla continue with their plan to decrease data collection frequency to quarterly. Please call or email me if you have any questions concerning this review.

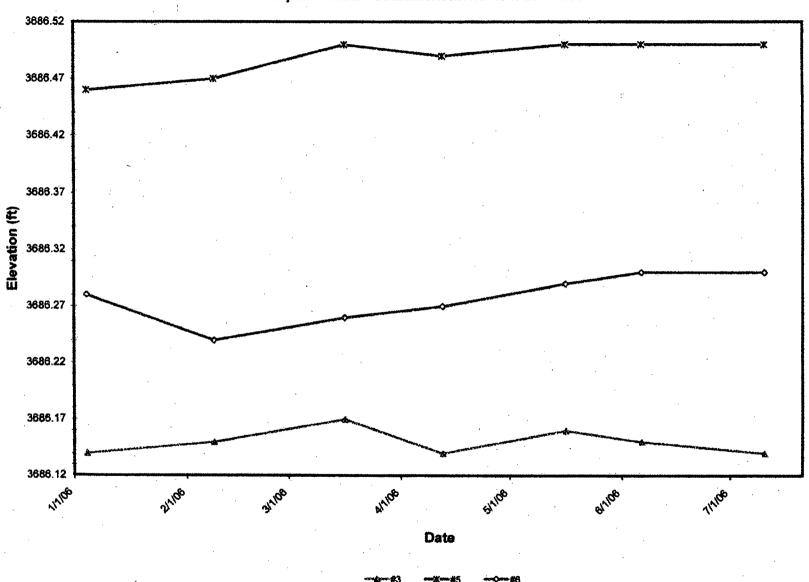


**Apex Pond 2 - Settlement Monument Elevations** 

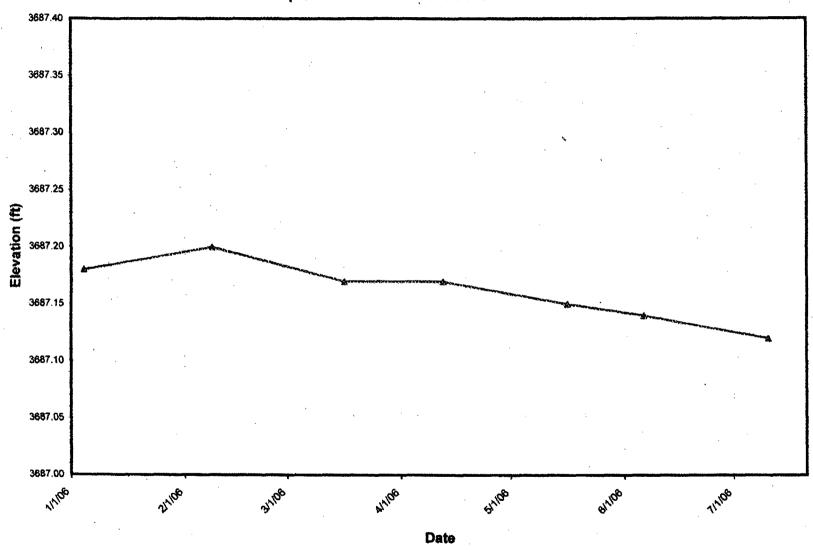


**Apex Pond 2 - Settlement Monument Elevations** 3686.00 3685.95 3685.90 3685.85 Elevation (ft) 3685.80 3685.75 3685.70 3685.65 3685.60 11/108 Date

**Apex Pond 2 - Settlement Monument Elevations** 



**Apex Pond 2 - Settlement Monument Elevations** 



**Apex Pond 2 - Settlement Monument Elevations** 3678.20 3678.15 3678.10 3678.05 Elevation (ft) 3678.00 3677.95 3677.90 3677,85 3677.80 11/108 Date

-----#10 (@gate)

**Apex Pond 2 - Settlement Monument Elevations** 

